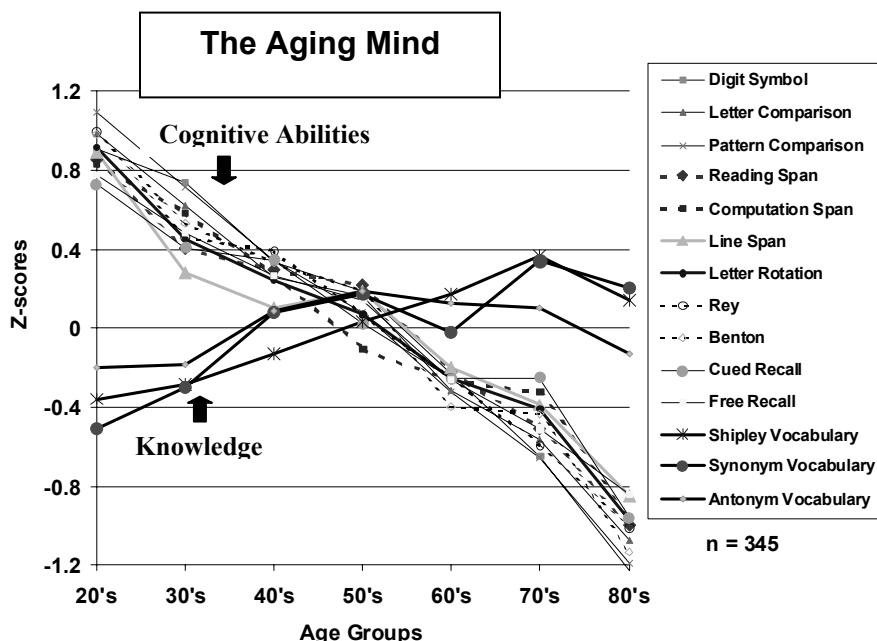


Consumer Fraud and the Aging Mind
Scientific Testimony Presented to
The Senate Special Committee on Aging
July 27, 2005
By Denise C. Park, Ph.D.

Good afternoon, Chairman Smith, Senator Kohl, and other members of the Committee. My name is Denise Park. I am a cognitive neuroscientist and professor at the Beckman Institute, which is part of the University of Illinois in Urbana-Champaign. I direct the Roybal Center for Healthy Minds at the University of Illinois, a Center funded by the National Institute on Aging that is designed to take the results of basic laboratory research on aging and determine how these results can be used to improve function in older adults in their every day lives. I have also been involved with the NIH by just completing a stint chairing an NIH Review Panel for the past several years and I also just completed a term on the Board of Directors of the American Psychological Society.

Thank you for inviting me here. My research for the past two decades has focused on the aging mind. Today, I would like to alert you to how changes in cognitive function with age make older adults particularly susceptible to being victimized by charlatans who exploit certain aspects of the aging cognitive system.

Below is a figure based on data collected from my laboratory that has been published in scientific journals as well as *USA Today* and *Newsweek*. I call this figure the "Aging Mind" slide. It represents data collected on many different cognitive tests from adults aged 20 to 90 selected from a group of exceptionally able and healthy older adults (Park et al., 2002). What you will see in this figure is the focus of my first important take-away point. Basic laboratory research demonstrates very clearly that as we age, beginning in our 20's, like many other systems in the body, our cognitive system shows signs of gradual deterioration. With age, we become slower at processing information; our memory becomes somewhat less effective; and our ability to take in a large quantity of information at one time and reason about it decreases. At the same time, these declines are not as important for function in everyday life as they might appear, because with age, as this figure shows, knowledge also increases, conferring a buffer against the impact of cognitive aging. Nevertheless, we do become increasingly "cognitively frail," and this frailty has the greatest impact when we cannot rely on our knowledge or experience to help us out. Thus, when older adults are faced unexpectedly with offers to buy things or have repairs done, they have less ability than younger adults to process all aspects of the message that they are receiving. This can result in them attending to the most attractive parts of a message, or the simplest part of the message, and agreeing to purchase things they neither want or need, or worse yet, signing contracts for which they never receive any services or that they don't understand.



A second take away point that will give you further insight into why older adults are more easily exploited by consumer scams is the following. There is conclusive evidence that older adults have a bias towards the processing of positive information. Studies conducted by Laura Carstensen and her colleagues at Stanford University suggest that with age, we learn to ignore negative information and direct more of our attention and limited cognitive resources towards positive information. This is generally good news, suggesting the resilience that characterizes so many of our older citizens. But at the same time, the tendency to process positive information at the expense of negative can make older adults particularly vulnerable to unscrupulous characters. Research in my laboratory conducted with Oscar Ybarra has demonstrated the following. We presented young and older adults with both positive and negative information about an individual and then tested memory for the traits we used to describe the individuals. Older adults tended to recall more positive traits and less negative information, whereas younger adults were more balanced between both positive and negative information (Ybarra & Park, 2002). These results suggest that when older adults meet a charming charlatan, they are going to be biased towards processing the positive information about the individual: his niceness, attractiveness, and warmth towards them, and be less likely to note the inconsistency of his story, or his tendency to gloss over specifics, which would make him seem untrustworthy to a younger adult. This problem is exacerbated by the more limited cognitive abilities of older adults (my first point), again resulting in increased vulnerability to exploitation and bad decisions about how to spend money. These types of effects will be particularly pronounced for our oldest citizens and those with less experience making financial decisions—for example, new widows over age 75.

The third point I want to make is that with age, we tend to remember less explicit detail about events and more of the gist of what we hear. With age, individuals are particularly bad at remembering the details or context in which they learned something (Johnson, Hashtroudi, & Lindsay, 1993). This point about gist memory will become particularly important when you consider my fourth point, and that is this: information that feels

familiar to an individual seems like it must be true. This is called the “illusion of truth effect” (Begg, Anas, & Farinacci, 1992). Knowing that older adults remembered gist over detail, and that familiar information feels true, my colleagues Ian Skurnik, Norbert Schwarz, Carolyn Yoon, and I set up an experiment that was designed to demonstrate that information that individuals believe to be false at the time they learn it will later seem true. Here is what we did.

We had older adults (aged 60 and over) and young adults (ages 18-25) come into our lab and we presented them with a series of statement about health and told them whether the statements were true or false. For example, they would see statements like “Most cold medicines cause the eye’s pupil to dilate,” or “DHEA supplements can lead to liver damage, even when taken briefly.” Some of the statements they saw only once and some they saw three times. Thus, all participants studied some statements that they were told three times were false. Now remember that older adults tend to remember gist but not the details of what they hear or see. And remember that familiar information seems true. So what did we predict? We predicted that people would be more familiar with the statements that they heard three times were false than the statements that they heard one time were false. And we also expected that older adults, because they forget details, would not remember whether the statements were true or false.

So when we brought our participants back to our lab three days after they studied the statements, what did we find? We showed people the statements they studied earlier as well as some new ones, and asked people to judge whether the statements were true, false, or new. What we found was very surprising on the surface, but also exactly what we predicted. We found that old, but not young, adults, were more likely to call a statement “true” that they had been told was “false” THREE times compared to a statement they had been told was false only once! Thus, the more often participants had been told a medical statement was false, the more likely they were later to believe that it was true! (Skurnik, Yoon, Park & Schwarz, 2005). This is because the statements they heard were false multiple times felt familiar, and information that feels familiar seems true. Young adults did not show these effects because they could rely on explicit memory rather than gist and retained the information that the statements were false.

These findings explain how pernicious the effects of false claims can be for older adults. An older adult might not believe that “shark cartilage cures arthritis” if they read it as a headline in tabloid at the grocery store checkout. But later, when they encounter the shark cartilage in the store, they might remember they heard “somewhere” that it was a cure for arthritis and decide to purchase it—not remembering that they disbelieved the information when they initially read it. These findings provide insight again into not only how older adults might be exploited, but also provide guidelines for providing warnings to older adults. When presenting information to older adults as a warning, it is very important to present information clearly and in a positive way (e.g., “Do this.” rather than “Never do this.”) if we want older adults to remember it accurately. Here is an example of a way NOT to present older information to older adults taken from an actual pamphlet about “living trusts.”

THE CLAIM: A living trust will preserve your legacy to loved ones by helping you avoid probate costs and estate taxes.

THE TRUTH: Most people don't need to worry about probate or estate taxes. Most living trusts aren't designed to avoid estate taxes. There are many easier, cheaper ways to avoid probate than a living trust.

Older adults, a few days later, might only remember that they learned something about how living trusts are important for avoiding probate and think that they need one, even if they initially understood that living trusts are rarely needed to avoid probate.

A better way to present this might be as follows:

Living trusts are usually unnecessary and rarely save money for people. If you think a living trust is for you, get advice from an estate planning attorney.

Presenting false claims about health or taxes to older adults and then explaining why they are wrong is a dangerous business for helping older adults avoid fraud.

What I would like to do now is to critique several public service ads intended to educate older Americans about consumer fraud from the point of view of a cognitive psychologist. I will be pointing out features that will make the materials more easily comprehended and remembered by older adults and also presenting some examples that have some significant problems that will likely limit their effectiveness. As we look at these ads, keep in mind that designing materials for older adults can be particularly difficult, due to the range of cognitive ability present in this population. There are, of course, many older adults who are functioning at an extraordinarily high level and will be quite insulted by materials that are so simple that they appear to "talk down" to them. At the same time, there is a significant proportion of very old adults who are cognitively compromised and who also have a limited social network and may be those most susceptible to fraud. It can be quite a challenge to design materials that speak to both groups. Nevertheless, I will show you some materials that succeed for both groups, and others that are problematic in their design.

Example 1

Myths

At the present time, Alzheimer's remains incurable. This lack of information about the disease provides room for misconceptions and false beliefs about the disease. The following are six of the most common myths followed by facts.

MYTH ONE: Alzheimer's Symptoms are Natural Signs of Old Age

FACT: This is not true. Normal signs of aging may include forgetfulness or mild memory loss. Alzheimer's, however, progresses more quickly and severely, and eventually fully deteriorates the brain.

Older adults will later remember that this false information is true due to the finding that, later on, familiar information feels true.

MYTH TWO: Problems Arise During Old Age Due to Senility

FACT: A proper diagnosis will render this myth untrue. Senility represents a general term used to cover a variety of symptoms. Senility is not synonymous with Alzheimer's. Many other problems may have similar symptoms but are treatable, even curable. An older person should be encouraged to seek a professional medical exam rather than assuming that senility is inevitable.

MYTH THREE: There is No Hope for an Alzheimer's Person

FACT: Even though there is no present cure, there are many items that will help an Alzheimer's person remain comfortable and happy. Specific activities to keep the person active and prosperous, proper medical attention to relieve unnecessary symptoms, proper behavioral guidance to ward against depression etc. are a few examples of what can be done.

MYTH FOUR: Alzheimer's is a Mental Illness

FACT: This is true to an extent. Because Alzheimer's affects the brain, it is a "mental" illness. However, it is by no means strictly a psychiatric disorder. Alzheimer's is a degenerative disease that affects the brain, and consequently the whole unified body remains affected. A change in personality is part of it, but in

First, I will show you some examples of problems. The first example is material about Alzheimer's disease designed by a nonprofit Alzheimer's support organization. This particular brochure illustrates one of the points I made earlier: Remember that I mentioned that older adults tend to remember the gist of what they read rather than details and that information that is believed to be false at the time it is read may "feel" true later because it is familiar. Thus, when information is presented as a set of itemized "myths," there is a good chance that that information will later be remembered as truth. For example, an older adult reads the statement, "MYTH: There is No Hope for an

Alzheimer's Person." At the time he or she reads it, it is understood that this statement is false. Days later, however, all the individual remembers is that he or she once read somewhere that there is no hope for people with Alzheimer's, completely forgetting the context in which it was read. The older adult recalls the gist of the statement, but forgets that it was learned in the context of being told it was a false statement. Had the information been presented in a straightforward and positive way ("FACT: There are things that can be done to help people with Alzheimer's!"), such misunderstanding could have been avoided.

Example 2

FTC Consumer Alert

Federal Trade Commission ■ Bureau of Consumer Protection ■ Office of Consumer & Business Education

How Not to Get Hooked by a 'Phishing' Scam

*"We suspect an unauthorized transaction on your account.
To ensure that your account is not compromised,
please click the link below and confirm your identity."*

*"During our regular verification of accounts, we couldn't verify your information.
Please click here to update and verify your information."*

Have you received email with a similar message? It's a scam called "phishing" — and it involves Internet fraudsters who send spam or pop-up messages to lure personal information (credit card numbers, bank account information, Social Security number, passwords, or other sensitive information) from unsuspecting victims.

According to the Federal Trade Commission (FTC), the nation's consumer protection agency, phishers send an email or pop-up message that claims to be from a business or organization that you may deal with — for example, an Internet service provider (ISP), bank, online payment service, or even a government agency. The message may ask you to "update," "validate," or "confirm" your account information. Some phishing emails threaten a dire consequence if you don't respond. The messages direct you to a website that looks just like a legitimate organization's site. But it isn't. It's a bogus site whose sole purpose is to trick you into divulging your personal information so the operators can steal your identity and run up bills or commit crimes in your name.

The FTC suggests these tips to help you avoid getting hooked by a phishing scam:

- **If you get an email or pop-up message that asks for personal or financial information, do not reply. And don't click on the link in the message, either.** Legitimate companies don't ask for this information via email. If you are concerned about your account, contact the organization mentioned in the email using a telephone number you know to be genuine, or open a new Internet browser session and type in the company's correct Web address yourself. In any case, don't cut and paste the link from the message into your Internet browser — phishers can make links look like they go to one place, but that actually send you to a different site.
- **Use anti-virus software and a firewall, and keep them up to date.** Some phishing emails contain software that can harm your computer or track your activities on the Internet without your knowledge.

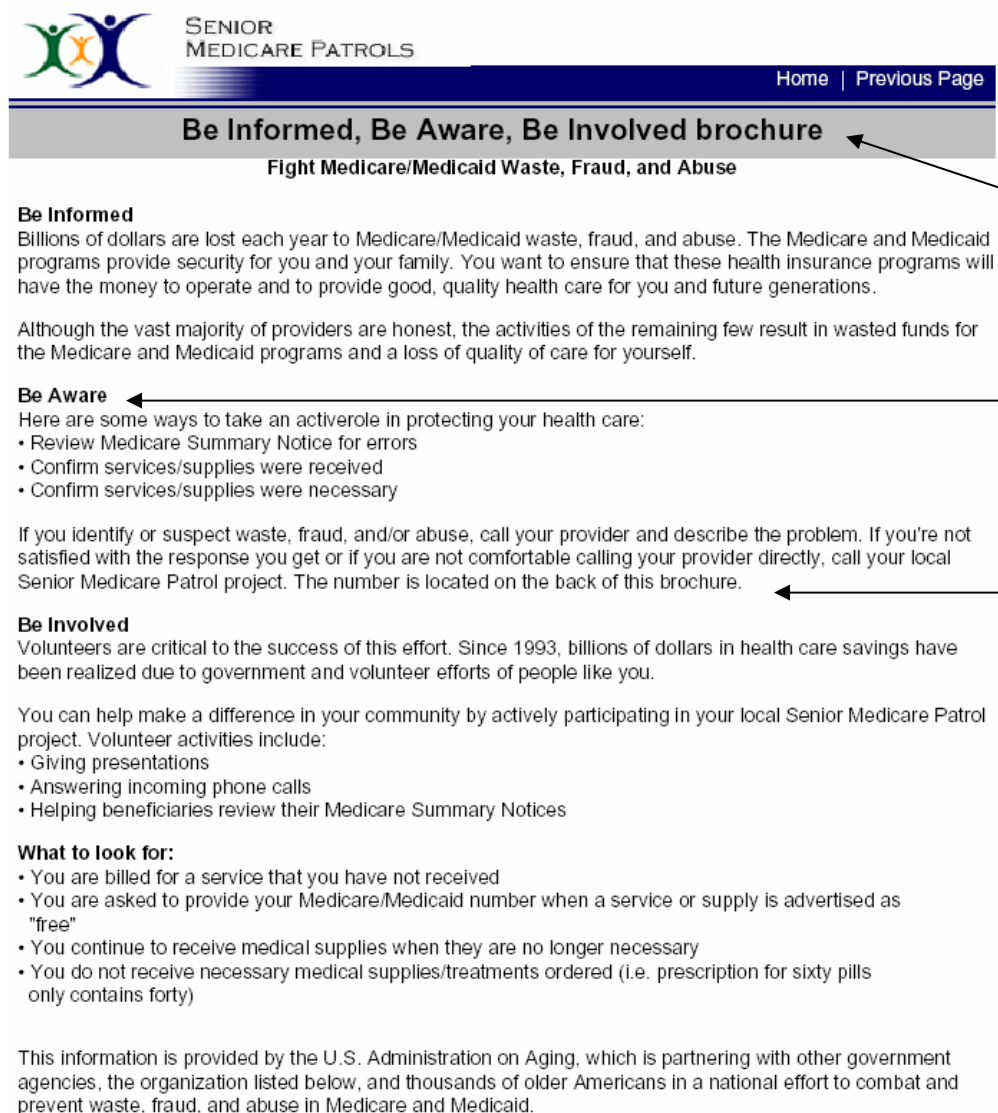
Anti-virus software and a firewall can protect you from inadvertently accepting such unwanted files. Anti-virus software scans incoming communications for troublesome files. Look for anti-virus software that recognizes current viruses as well as older ones; that can effectively reverse the damage; and that updates automatically.

The people most likely to be "hooked" by a phishing scam might not read this, as they won't know what "phishing" is.

This next example is a consumer fraud fact sheet published by the Federal Trade Commission that warns against "phishing" scams, a type of e-mail scam to which older adults, due to more limited experience with the Internet, may be especially vulnerable. The problem with this ad is that those individuals most likely to be taken in by a "phishing scam" are probably going to think it has something to do with the sale of seafood that doesn't exist. So the people who most need to read this would be likely to pass by this information when encountered. Perhaps a better headline would be "Have you been getting e-mail requests to update financial records or to help secure funds for

someone in another country? It's a SCAM!" Then the next line might read, "How Not To Get Hooked by a 'Phishing' Scam."

Example 3



SENIOR MEDICARE PATROLS Home | Previous Page

Be Informed, Be Aware, Be Involved brochure

Fight Medicare/Medicaid Waste, Fraud, and Abuse

Be Informed
Billions of dollars are lost each year to Medicare/Medicaid waste, fraud, and abuse. The Medicare and Medicaid programs provide security for you and your family. You want to ensure that these health insurance programs will have the money to operate and to provide good, quality health care for you and future generations.

Although the vast majority of providers are honest, the activities of the remaining few result in wasted funds for the Medicare and Medicaid programs and a loss of quality of care for yourself.

Be Aware
Here are some ways to take an active role in protecting your health care:

- Review Medicare Summary Notice for errors
- Confirm services/supplies were received
- Confirm services/supplies were necessary

If you identify or suspect waste, fraud, and/or abuse, call your provider and describe the problem. If you're not satisfied with the response you get or if you are not comfortable calling your provider directly, call your local Senior Medicare Patrol project. The number is located on the back of this brochure.

Be Involved
Volunteers are critical to the success of this effort. Since 1993, billions of dollars in health care savings have been realized due to government and volunteer efforts of people like you.

You can help make a difference in your community by actively participating in your local Senior Medicare Patrol project. Volunteer activities include:

- Giving presentations
- Answering incoming phone calls
- Helping beneficiaries review their Medicare Summary Notices

What to look for:

- You are billed for a service that you have not received
- You are asked to provide your Medicare/Medicaid number when a service or supply is advertised as "free"
- You continue to receive medical supplies when they are no longer necessary
- You do not receive necessary medical supplies/treatments ordered (i.e. prescription for sixty pills only contains forty)

This information is provided by the U.S. Administration on Aging, which is partnering with other government agencies, the organization listed below, and thousands of older Americans in a national effort to combat and prevent waste, fraud, and abuse in Medicare and Medicaid.

What is this brochure about?

Headers convey no information.


No phone number given.

This next excerpt is from a pamphlet on Medicare/Medicaid fraud put out by the Department of Health and Human Services and the Administration on Aging, and it's another example of helpful information being presented in a difficult and inaccessible format. Here we see once again that the main title, "Be Informed, Be Aware, Be Involved," does not convey any useful information about what the pamphlet is actually about. The section headings also give no sense of what the topic of the pamphlet is. It is only upon careful scrutiny that one is able to notice that it is about health care and Medicare fraud. Finally, in small print, it indicates that if one suspects that fraudulent charges have been made to Medicare on their bill, they should call the number on the back of the pamphlet. But actually there is no number provided. The title of this pamphlet might instead read, "Check Your Medical Bills! Be Alert To Medicare Overcharges and Medicare Fraud!"

Example 4

Five Steps to Safer Health Care


Title conveys specific information.



1 Ask questions if you have doubts or concerns.

Ask questions and make sure you understand the answers. Choose a doctor you feel comfortable talking to. Take a relative or friend with you to help you ask questions and understand the answers.


Headers recommend specific course of action.



2 Keep and bring a list of ALL the medicines you take.


Give your doctor and pharmacist a list of all the medicines that you take, including non-prescription medicines. Tell them about any drug allergies you have. Ask about side effects and what to avoid while taking the medicine. Read the label when you get your medicine, including all warnings. Make sure your medicine is what the doctor ordered and know how to use it. Ask the pharmacist about your medicine if it looks different than you expected.

Smaller print provides detail for those who are interested.




3 Get the results of any test or procedure.

Ask when and how you will get the results of tests or procedures. Don't assume the results are fine if you do not get them when expected; be it in person, by phone, or by mail. Call your doctor and ask for your results. Ask what the results mean for your care.




4 Talk to your doctor about which hospital is best for your health needs.

Ask your doctor about which hospital has the best care and results for your condition if you have more than one hospital to choose from. Be sure you understand the instructions you get about follow-up care when you leave the hospital.




5 Make sure you understand what will happen if you need surgery.


Make sure you, your doctor, and your surgeon all agree on exactly what will be done during the operation. Ask your doctor, "Who will manage my care when I am in the hospital?" Ask your surgeon: Exactly what will you be doing? About how long will it take? What will happen after the surgery? How can I expect to feel during recovery? Tell the surgeon, anesthesiologist, and nurses about any allergies, bad reaction to anesthesia, and any medications you are taking.



U.S. Department of Health and Human Services in partnership with



American Hospital Association



American Medical Association

Pub No. AHRQ 03 MB07

The next advertisement, developed by the Department of Health and Human Services, the American Hospital Association, and the American Medical Association, is a good example of a well-crafted message that is easily accessible to older adults at all levels of cognitive function. The text is simple and succinct. The title and headings are eye-catching and easy to understand. It's possible to gather the gist of the message simply by glancing at the bold text alone. However, anyone who is interested in more detail can choose to read the small print as well. The pictures, while adding to the overall attractiveness of the ad, also serve to reinforce the main points and make them more memorable and easier to process.

Example 5

Stop Calling Me! How to Remove Your Name from Marketing Lists

For an update on the Do Not Call List, click [here](#).

STOP calling me!

*How to Remove
Your Name from
Marketing Lists*

It's clear what you can learn by reading further.

*Tired of telemarketing calls, "junk mail," and email messages from strangers trying to sell you something? It's hard to avoid them completely, and there may be opportunities that you really want to hear about. But it is possible to reduce the amount of unwanted offers you receive. **Click here** to learn more about it ...*

Continued...



Telemarketing Fraud Tips from the
National Consumers League's National Fraud Information Center

Avoiding Sales Calls



Tired of calls from strangers trying to sell you something? Bothered by shady characters offering deals that are too good to be true? You can't eliminate unwanted calls completely, but you can reduce the number you receive.

Internet
Fraud Tips

Telemarketing
Fraud Tips

NCLnet.org

Online
Complaint
Form

Fraud.org

- **Sign up for the national "do not call" registry.** It's easy and it's free! Call (888) 382-1222, TTY (866) 290-4326 from the phone number you want to register. Unfortunately, registering by phone may not work if you live in a residential complex that uses a PBX phone system. But you can also register online at www.donotcall.gov. If you don't have a computer, use someone else's. You'll need Internet access and a working email address. The "do not call" system will send a response to that address with a link that must be clicked on within 72 hours to complete the registration.
- **Registration doesn't last forever.** It expires in five years. No notice will be sent to you, so keep your own records. You can confirm that a number is on the registry and the registration date through the toll-free number or Web site. If your number changes or is disconnected, you'll need to re-register. You can also take the phone number off the "do not call" registry anytime via the toll-free number or Web site.
- **Some callers aren't covered.** Nonprofit groups, charities, political organizations, and survey companies don't have to use the national "do not call" list. But when charities use professional fundraisers to call, they must honor your request not to call again.
- **Some companies can still call you.** Even if your number is on the registry, companies can call if: you purchased something from them or made a payment within the previous 18 months; you asked about a product or service or submitted an application in the past 3 months; or you have a "personal relationship" as a friend, relative or acquaintance. But you always have the right to tell them not to call again.
- **Be careful what you sign.** Companies can also call with your written permission, so look at contracts, order forms, contest entry forms, and other things you sign carefully to make sure you're not agreeing to be called without realizing it. You can withdraw consent anytime by saying, "don't call me again."
- **It may take a while to notice fewer calls.** Telemarketers check the national "do not call" registry every three months, so it may take that long before your number is removed from their calling lists.

Clear headers with details below.

This excerpt from the webpage of the National Fraud Information Center is another example of a well laid out public service message. The front page of the website grabs the attention and tells the reader exactly what information is coming. The main page is laid out simply and effectively, with headers that “signal” the content of each paragraph, allowing readers to direct their attention quickly to more detail on topics that interest them.

Example 6

Know Your Source.



Nice integration of visual and verbal information.

Buying Medical Devices Online Can Be Tricky.

Clear and simple message.

Anyone can create an appealing illusion on a Web page.

Be wary if the product:

- Has not been cleared for sale by the FDA;
- Claims to diagnose or treat more than one illness, e.g., cancer, arthritis, anemia;
- Is made by one laboratory only and sold directly to the public.

Avoid buying from sites:

- That uses words like “new cure;”
- With impressive-sounding terminology that can hide bad science;
- Without a U.S. address and phone number.

Credible source clearly visible.



For more information about online medical device purchases, contact the U.S. Food and Drug Administration at www.fda.gov and click on “Buying Medicines and Medical Products Online,” or call 1-888-INFOFDA (1-888-463-6332).

Easy to get more info.

*A public service message from the FDA and the Cyber-Smart Safety Coalition:
Working to provide information about online medications*

Here is another simple and effective advertisement, this one from the F.D.A. This is a magazine ad that immediately conveys the notion that it can be risky to purchase medical devices on the internet and warns the reader what to avoid. Also, the F.D.A. logo is prominently displayed in this ad – a nice touch that serves to add legitimacy, since most seniors know the F.D.A. and are more likely to pay attention to information from a trusted source.

To conclude, I hope you remember the following.

Normal aging is accompanied by declines in cognitive function that result in older adults remembering gist rather than details. Never present older adults with false statements as examples, because later on, they will feel true to the older adult.

Older adults have a bias to process positive information and this can lead to exploitation due to their tendency not to process negative information about shady characters and to focus on the positive.

Finally, I would like to note that cognitive aging scientists can play an important role in designing effective and memorable materials for older adults that will help them be less vulnerable to fraud. The work that I have presented today is only a small example of the help cognitive scientists can offer in designing effective materials for older adults to protect them against fraud, as well as to aid in designing materials that clarify information about taxes, forms, medical conditions, and social security. The research I presented today was supported by the National Institute on Aging and is a good example of how basic laboratory research can result in important outcomes for understanding everyday behaviors. It has been an honor and a pleasure to share with you the work conducted under the auspices of the National Institute on Aging Roybal Center for Healthy Minds.

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